ALABAMA'S HIGHWAY DEPARTMENT
THE FORMATIVE YEARS, 1911-1925

Organized along with an oyster commission and initially housed in the cloak room of the Senate, the Alabama Highway Department now supervises on o he top three functions o state govrnment and has its own building, a seven-story Highway Department Building behind the State Capitol. Its initial staff of five commissioners and three regular employess increased to almot 5,000 employees. When the State Highway Commission was created in 1911 during Governor Emmet O'Neal administration, Alabama had 3,780 miles of improved roads. Three yeas later, in 1914, there were 9,000 motor vehicles. While the road mileage has increased only eighteen times since 1911, the use of the roads (number of motor vehicles) has increased more than 2500 times in the sixty years since 1914. (See the Statistical Tables and Charts for the specifics of this sixty-five year development.)

The Highway Department has had seventeen different directors. One director, W. Guerry Pruett, had three terms (1942-1943; 1951-1955; and 1971-1972), and two directors had two terms each: Ed N. Rodgers (1945-1947; 1963-1964) and Herman L. Nelson (1955-1959; 1964-1968). The first three directors were called commission chairmen and were ably assisted by State Highway Engineer William Simpson Keller. (In some Department historical documents, Keller is listed as the director during these years.)

The governor of Alabama when the State Highway Commission was established in 1911 was Emmet O'Neal of Florence (born 1853; died 1922). Governor O'Neal was the son of former governor Edward A. and Olivial (Moore) O'Neal. He graduated from Florence Wesleyan University (now the University of North Alabama), University of Mississippi, and University of

Alabama before entering his father's law firm. O'Neal was appointed by President Grover Cleveland (the first Democratic president since the Civil War) as United States District Attorney in 1893. He served in the Constitutional Convention of 1901 (which produced Alabama's current Constitution), organized the fight against statewide prohibition (His philosophy was "to let every man be his own prohibitionist."), and was President of the Alabama Bar Association before being elected Governor in 1910. O'Neal was the first governor to occupy th Governor's Mansion. As governor, he inaugurated a rural school library system, provided courses of study for schools, increased the educational appropriation, and created an oyster commission as well as th State Highway Commission. During his administration, the legislature passed laws to protect workers in the mines, to raise child labor laws, and to improve agriculture. These legislative acts, the measures aiding the public education, and the creation of the Highway Commission were in line with the programs of the progressive era administrations of President Woodrow Wilson. The beginning of state direction to a road system in Alabama paralleled similar developments in other states and, like them, was a response to the Good Roads Movement discussed earlier.

In the early years of the supervision of the State's road system from Montgomery, a Highway Commission, headed by a commission chairman, provided executive direction. The first commission chairman was Robert E. Spragins of Huntsville. Spragins headed a fiveman commission composed of himself; John Craft of Mobile (who was to become the second commission chairman in 1919); V.B. Atkins of Selma: G. N. Mitcham, Professor of Civil Engineering at Auburn; and Eugene A. Smith, State Geologist at the University of Alabama.

Technical help to the Commission was furnished by a State Highway Engineer, W. S. Keller: an Assistant State Highway Engineer, Robert Platt Boyd; and a clerk, C. L. Rabb. Keller

and Boyd had prior experience at the county level - Keller as county engineer of Dallas County and Boyd as county engineer of Morgan County. Keller, a University of Alabama graduate, had constructed roads for the office of Roads in the Department of Agriculture prior to his post in Dallas County and was to become a mainstay of the early Highway Department, serving as State Highway Engineer under the first three commission chairmen (Spragins, 1911-1919; Craft, 1919; and John A. Rodgers, 1919-1927) until his death in 1925. Boyd, and Auburn graduate (as were many of the early Alabama roadbuilders), served the Highway Department for a number of years and was its first historian. He composed the first part of a three-part Highway Department history published by the Alabama Roadbuilder in the spring of 1958 (based on his 1911-1922 sketch of the Department in 1922 report of the State Highway Commission). Rabb resigned as clerk after nine months and was replaced by F. O. McManus who served until his retirement in 1956, the longest service record of the early employees of the Department.

Financial woes of current highway executives were shared by their 1911 counterparts. The 1911 Act appropriated $154,000 yearly form the state convict funds for the construction of roads and overhead expenses of the state executives. Each county received $2000 a year for construction of roads and bridges which had to be matched. The county could accumulate the $2000 state aid for only two years. If not matched by this time, the money would be redistributed to all the counties.

Road construction on the local level directed by the state was supervised by resident engineers. In 1912 there were nine resident engineers who handled several counties each and ten county engineers who acted as resident engineers - making surveys and supervising work in their areas. The resident engineers were paid $5.00 per day from joint state and county funds. Each

engineer furnished his own basic epuipment such as instruments, rods and chains. The state provided expendable supplies including notebooks, profile paper, and estimate blanks.

Early resident engineers were J. B. Converse, Jerry Gwin, S. J. Cummings, S. R. Batson, S. E. Fitch, Bob Kenan and M. S. Bingham. The first year, 1911-1912, there were only nine counties which received state aid, totaling $18,000. The Commission salaries, travel expenses, and supplies amounted to $7,332.84. As can be readily seen, the bulk of the road work in the state was done through local governments, which had been the case long before the creation of the State Commission.

By the early 1900's Alabama counties were spending two and a half million dollars a year to improve to roads. A considerable portion of the roads improved by counties in this era were poorly done and require extensive repairs in short order. Counties which felt the need for hard-surface roads first and responded to the need with bond issues for funding.

Montgomery County became a leader in the hard-surface road movement in Alabama. As early as the late 1890's, approximately five miles of the principal roads leading out of the city of Montgomery were surfaced with chert, shipped from a chert pit in Calhoun County. Woodley Road, Carter Hill Road, and the Mobile Road were hard-surfaced in this manner. The chert was not crushed and had large sized lumps which contributed to rough traveling, but it supported heavy wagon loads. Later a fine sand-clay gravel from the Centelow gravel pit on the old Lowndesboro or Selma Road was used on Montgomery's roads.

J. M. Garrett was the first county engineer of Montgomery County, but the major roadbuilder in the county in the bond financed road improvement program of the 1905-1911 period was J. T. Bullen. Bullen was an Auburn graduate who contructed roads in Jackson County

(as early as 1902) before coming to Montgomery. Under his direction, the county constructed 532 miles of gravel roads and many concrete and steel bridges. When Bullen moved to Louisiana in 1911, he was replaced by a man he had trained, Thomas H. Edwards, like Bullen a graduate of Auburn. In 1958 (when Boyd published his departmental history of the 1911-1923 era), Edwards was the oldest county engineer in the State. Boyd attributed Montgomery's fine county road system to Edwards's "engineering ability, combined with good judgement and knowledge of soils, materials and men."

By 1912 all road construction was by counties, financed with bonds or county warrants. In 1916, the total bonded debt of the thirty-nine counties which had indebtedness for roads was $8,464.799. Twenty two counties had county engineers, and of Alabama's 56,396 miles of roads, 9,536.8 miles were improved.

As the counties were improving the bulk of the roads, the main role of the State Highway Commission in the early days was to educate the counties of the need for constructing roads along economical and engineering lines and to use to their best advantage local construction materials. To this end the State Commission in 1912 adopted a series of rules and regulations which were distributed to the counties and the riseident engineers.

1. Although the county designated the road to be improved, it had to be a main road and the work done on it had to be of a permanent nature.

2. The right of way had to be not less than fifty feet and had to be acquired by the county, without expense to the state and exclusive of the $2,000 appropriation made by the county to match state funds.

3. The road bed or travel way was required to be not less than twenty feet between side

ditches.

4. The shoulders were to be not less than four feet in width.

5. Macadam surface was required to be at least ten feet in width, gravel surface not less than twelve feet, and sand-clay not less than fourteen feet.

6. The grade of any state road could not be more than five percent.

7. The work could be done by contract, by county forces, or be county convicts.

8. If the work was done by contract, the bids had to be advertised in a Montgomery paper and a local paper for thirty days before bids were received. Bids were received at the county seat and the letting attended by one of the state engineers. A bond of double the amount of the contract was required on all state aid contracts.

9. When the work was done by county forces, the county had to provide its own equipment, teams, small tools, and other supplies. The state would not buy any equipment or supplies, except for materials that went into the work such as cement, pipe, or lumber for bridges or forms. Labor was paid at the price of the prevailing wage, usually $1.00 to $1.50 per day, and a reasonable price was allowed for teams and drivers.

10. When county convicts were used, the salaries of the foremen and guards were paid out of the joint (state-county) fund. All bills had to be itemized and checked by the resident engineer before payment.

By March 1, 1913, forty-six counties had used aid under the 1912 rules and regulations, and thirty-one counties had applied for 1913 aid. More than 4,500 miles of road had been improved.

Whether the road improvement was done under contract, by the county, or through the

use of county convicts, the construction method were primitive by present standards. The only power machinery for road construction was gas or steam rollers and rock crushers. All work was done by teams of horses or mules. (A good pair of mules cost $300.) Grading was done with wheeled scrapers, slip scrapers, and fresno scrapers. Material was hauled in slat bottom wagons that held from one to two cubic yards. Road machines were team drawn. A good contractor had from ten to twenty teams, wheeled scrapers, large plows, road machines, and the necessary small tools. As macadam and chert roads required crushing and rolling, rollers were needed. (A one cylinder, gas, three-wheel roller which weighed ten tons cost $3,000.)

In the 1912-1913 period, fifty-three counties had work under construction, thirty-four by contract, sixteen by county forces, and three by county convicts. The average cost per mile of road in Alabama at this time was $1,775.29.

In the early years of the Commission, state-county cooperative undertakings, particularly on contract lettings, had some trying moments. One occurred in Coosa County with a local road contract using some state monies. A local man, who had constructed log roads for railroads, bid what he called a "lock and key job," or a lum sum. The county wanted him to have the contract, but the state rejected it, recommending instead the lowest bid which itemized unit costs. The county refused the state recommendation and advertised the job again. On the second bidding the local man was the low bidder by several thousand dollars, but his itemizations were incompleted. It was apparent to the state people that the local contractor could not do the work to state specifications at the prices quoted, so they rejected the bid a second time. At the next letting, the same man finally got his bid up to the point that he could possibly do the work, and the itemization suggested that he could do it to the satisfaction of the state; therefore, he was

awarded the contract. He worked at the job for two years before concluding it at a loss. He learned from his experience, however, and later became one of the most successful contractors in the state.

The Coosa County contractor got into the business at an opportune time as the demand for good road became more and more wide-spread. By September, 1914, Alabama had 6,078 private and commercial automobiles, and a number of organizations were promoting more and better road construction.

One of the more significant of these early associations (to state highway executives) was the American Association of State Highway Officials (AASHO) orgaized in Atlanta, Georgia, in November, 1914, as a by-product of "The American Road Congress." Several thousand delegates from thirty states attended the meeting, including Alabamians W. S. Keller (State Highway Engineer), Robert Platt Boyd (Assistant State Highway Engineer) and Professor S. N. Mitcham of Auburn University (Highway Commission Member). The "Congress" was addressed by its President, A. B. Fletcher, State Highway Engineer of California, who urged more and better roads and "taking roads out of politics." Delegates were also treated to a road exhibit prepared by Logan Waller Page of the Office of Public Roads of the Department of Agriculture and a nationally known good road advocate. Page addressed the Congress and recommended the construction of concrete roads. Although such roads had cost from $14,000 to $16,000 per mile in New York, he alleged that they could be built in the South for $7,500 per mile (no explanation given). In the discussion which followed his talk, a delegate wanted to know the effect of concrete roads on horses' feet. The "Automobile Revolution" was beginning to develop, but it had a more significant impact on some areas than others.) It was noted at the Congress that forty

of the forty-eight states had highway legislation and state aid. (Exceptions were Arkansas, Florida, Georgia, Indiana, North Carolina, South Carolina, Tennessee, and Texas.) The delegates passed a resolution advocating federal aid to highway and sent a telegram to President Wilson to the same effect. The President commended the American Road Congress for its efforts and expressed approval of the good roads movement. Alabama's Stae Engineer Keller was made a member of a committee to encourage federal aid, and through the committee's efforts and the support of Alabama United States Senator John Hollis Bankhead, Sr., of Jasper the 1916 legislation establishing federal aid was initiated. The 1916 legislation followed Alabama's matching program (state-county road work) by requiring matching funds by the states on a fifty-fifty basis.

When the first federal aid was available under the Act in 1917, there were no state funds available to match the federal aid; therefore, the State Highway Commission allowed the counties to match the $10,000 allotted to the state. Thirty-one counties received the aid on a first-come-first-served basis.

At the appropriation for highway construction seemed to be a fixed policy of Congress to aid the states, the people of Alabama realized that some steps must be taken to provide enough money to meet the federal appropriations without calling upon the counties. To this end, the legislature on October 31, 1921, passed a bond issue law providng for a state bond issue of $25 million for the construction and maintenance of roads with the understanding that it would be used with federal appropriations. This law was attacked in the courts but held void, and the bond issue was again submitted to the people and ratified in Janaury, 1922. During the interim, while there was no state bond money to match federal money, the State Highway Commission offered

federal aid to the counties that would aid the state in meeting the federal appropriation with the promise to refund such money when the bonds were approved. In this manner $698,875.94 was furnished by various counties. As promised, the state refunded the counties' money from the subsequent sale of bonds. The counties had come to the state's aid again and, as a result of their aid, Alabama did not lose any of the more than eight million dollars of allotted aid in the July, 1916-July, 1923 period.

On October 1, 1922, the status of federal and state aid projects was fifty-eight projects in thirty-two counties completed, comprising in all 361.3 miles of road and four large bridges costing $3,576,869.33; forty-seven projects in thirty-six counties under construction, amounting to $6,459,036.28, comprising 476.42 miles of road and six large bridges. Federal aid was distributed to the states on a percentage ration based on: total mileage of roads, one-third; total area of state, one-third; and total population, one-third. Alabama's percentage of this ratio amounted to 2.12 perdent of all funds allotted.

The Bureau of Public Roads required each state to designate a program for construction of federal roads and all funds had to be spent on this designated system, which was limited to seven percent of the entire state road mileage. This seven percent system comprised 3,959 miles across the nation, divided into primary roads, important to through traffic and secondary roads, which were important to the state.

Maintenance was the responsibility of the state and, if not properly done, the federal government would use federal funds due the state to perform the neessary repairs. In 1922, Alabama maintained 330.79 miles of roads under the federal aid program and, on October 1, 1922, more than $52,000 had been spent for maintenance.

The result of this federal aid was federal involvement in practically every phase of highway work. All surveys, plans, and estimates were inspected and approved by the Bureau of Public Roads through its engineers before any contracts were let. All contracts were let on a competitive basis with a representative of the Bureau of Public Roads present at lettings. After the work was begun the federal engineers made frequent inspections, and their recommendations were followed by the State Highway Department.

H. G. Wells was the Bureau's Senior Enginner in charge of Alabama from the beginning of federal aid in 1916 to his death in 1940. District engineers of the Bureau of Public Roads in Alabama, in chronological order and approximate time of service, were:

J. T. Bullen (formerly County Engineer of Montgomery County), 1916-1918;
Charles Morefield, 1918;
A. E. Loder, 1918-1923;
R. E. Toms, 1923-1924;
C. E. Swain, 1924-1931;
Charles Snead, 1931-1943.

The Alabama State Highway Department also received a boost from the federal government through its distribution to the states military surplus from World War I. Automobiles, turcks, tractors, raod machinery, small tools, and parts for automobies and turcks were obtained at nominal cost to the state in this manner. In 1922, the Highway Department had one and a half million dollars of equipment which cost less than $185,000. Some equipment ($675,000 worth - not including the $11/2 million) was distributed to the counties (on request) at the state's cost.

By 1922, the federal aid to Alabama had begun to show results in several special-names highways under construction. Major ones were the Bankhead Highway, the Dixie Overland

Highway, Jackson Highway, Bee Line Highway, and the Florida Short Route.

The State Highway Commission, in its 1922 Report, made the following remarks about progress on these five projects:

1. The Bankhead Highway running from east to west through the State through Anniston, Talladega, Birmingham and Jasper. There has been completed 12.8 miles of this highway at a cost of $315,676.00, of which $170,929.15 was State or county funds and $144,746.99 was Federal funds. There is under construction on this highway 48.8 miles of road costing $719,329.92 of which about one-half or $359,665.45 is Federal funds. There has been set aside under statement on this highway $190,918.75 to construct 8.9 miles.

2. Dixie Overland Highway crossing the state from east to west from Columbus, Ga., via Montgomery, Selma to Meridian. On this road there has been completed 6.5 miles costing $150,156.17 of which $74,314.22 was Federal funds. There is under construction 26.09 miles and a large bridge over the Tombigbee river costing $693,584.36 of which $346,792.17 is Federal funds.

3. Jackson Highway entering the State from Tennessee through Florence, Russellville, Vernon, thence to Mississippi. There has been completed 30.7 miles costing $301,077.64 of which $148,912.12 was Federal funds. There is under construction 8.3 miles costing $179,575.75 of which $89,788.37 is Federal funds.

4. Bee Line Highway entering Alabama from Tennessee passing through Athens, Decatur, Birmingham, Montgomery, Troy, and Dothan. There has been completed on this highway 62.84 miles of road and three bridges costing $632,549.08, of which $286,065.10 was Federal funds. There is under construction 31.15 miles of road and two State birdges costing $664,284.34 of which $312,338.12 is Federal funds. There had been set aside on this highway under statement $1,970,118.46 to build 89.81 miles of road, of the amount $985,059.22 is Federal funds. Bids will be received on December 5th for 22.77 miles of this highway entirely through the county of Shelby which will be a paved road of a high type with a grade of 26 feet and a paved surface of 18 feet. Work will begin on this section about January 1.

5. The Florida Short Route entering Alabama from Tennessee passing through Huntsville, Guntersville, Gadsden, Anniston, Talladega, Dadeville, Opelika to Columbus, Ga. There has been completed on this road 11.57 miles of road costing $86,961.89, of which $42,594.10 was federal funds. There is under construction 62.1 miles costing $1,140,757.51, of which $546,751.50is Federal funds. There has been set aside under statement for this road $256,965.60 to build 14 miles of road, of this amount $128,482.75 is Federal funds.

Federal activity in hihgway finance was the big story in the 1916-1923 era, but the state

was also undergoing some internal changes. Some roads had been constructed on the State Aid to counties program (for example, 177.5 miles in 1915 which cost approximately ($290,000) and, in addition to the $25 million bond issue (primarily to meet federal matching funds), the state also began to charge a fee for inspection of gasoline sold in the state. More than thirty-one million gallons of gasoline were inspected by the Highway Department's chemist, R. B. Janney, in 1921 and the state collected $15,503.87.

The State Highway Commission was also extensively reorganized in 1919, under the new Governor Thomas E. Kilby, and the Commission got a new home (in the Bell Building). The Highway Commission was enlarged to include a member from each of the state's ten Congressional districts and ex-officio members from Auburn and the University of Alabama. John C. Callen represented Auburn and Eugene A. Smith represented Alabama. The ten members from the Congressional districts were: John Craft (District 1); F. J. Cramton (District 2); J. B. Epsy (District 3); L. W. Hooper (District 4); O. T. Smith (District 5); John A. Rogers (District 6); T. H. Orr (District 7); Andrew Patterson (District 8); S. R. Batson (District 9); and W. D. Davis (District 10). John Rogers of Gainesville was the new commission chairman. The 1922 Highway Commission Report revealed only one change in the Commission - in District 10 Marvin Pearce replaced W. D. Davis.

Major Highway Deparment personnel in 1919 were:

Main Office in Montgomery (Bell Building):
- State Engineer - William Simpson Keller
- Principal Assistant - Colonel W. A. McCalla
- Assistant - H. G. Culverhouse
- Bridge Engineer - L. G. Smith
- Chief Draftsman - L. N. Dinsmore

Division 1 (Decatur)

Division Engineer - A. P. Henderson
Assistant - J. C. Long
Division 2 (Birmingham)
Division Engineer - J. H. Mayer
Assistant - S. E. Neal
Division 3 (Montgomery)
Divison Engineer - G. N. Mitcham (resigned from Auburn to acept the posistion)
Assistant - R. D. Jordan
Division 4 (Selma)
Division Engineer - A. L. Smith
Assistant - none listed (E. M. Stickney was the Assistant to Smith in 1922)

The "pillar of strength" of the Highway Department in the 1911-1925 years was the State Highway Engineer, William Simpson Keller, who died in 1925 and was succeeded by Colonel W. A. McCalla. J. L. Land (1919-1956 Department executive) said of him: "The loss of Mr. Keller was felt with sorrow throughout the nation. He was loved and respected for his tact, ability and integrity combined into a pleasant but firm personality, by all persons contacted regardless of position." I. B. Rutledge (head of the Bureau of County Aid from its establishment in 1943 until its abolitionin 1957) noted that the 1911-1925 era, due to Keller's example, was "characterized by a basic honesty and integrity in the conduct of business and all relations with the public, which has set a tradition of fair dealing, and the objective handling of operations on a high-plane which has stood the Department in good stead, and provided a standard for the conduct of its business throughout the years."

THE "PATCH ROAD ERA," 1920'S THROUGH THE DEPRESSION

The 1920's and 1930's in Alabama saw inadequate highway financing, increased road use, and an unsympathetic public who, perhaps unjustly, dubbed the period "The Patch Road Era."

Alabama's problem in the age was to a large extent a reflections of national woes - particularly the "do-nothing" governments which characterized the 1920's and the "The Great Depression" of the 1930's. Also, the State had some unique disadvantages which complicated proper road construction and maintenance. The possible injustice of the "Patch Road" tag comes with the knowledge that the State Highway personnel made the most of a bad situation, and, despite their difficulties, made some sound improvements in the state road system during this era. In fact, it is just possible that the historical idea of the unproductive twenties could use some re-interpretation on the local, and is so, the cumulative local (or national) level.

The traditional view of the "Age of Normalcy," or the retarded progress age, captured in the "Patch Road" designation for road building efforts has some supporting details - and some explanations. The reasons greater progress was not made included: 1) Alabama topography; 2) inadequate financing; 3) greater road use with the "Automobile Revolution," 4) maintenance problems; 5) primitive equipment; 6) serious flood damage in 1928-1929; and 7) the "Depression."

The topography of Alabama does not enhance inexpensive road construction. The extensive waterways of the State, which have been so often heralded, were the opposite of heavenly to a roadbuilder. The Tennessee, Alabama, Tombigbee, and Chattahoochee rivers and their tributaries necessitated costly bridges. The mountains of the northern part of Alabama were beautiful to sightseers but roublesome for engineers.

The $25 million bond issues in 1922 and 1926 were helpful, but they did not provide sufficient funds to cope with the increased automobile traffic or to provide for the necessary maintenance. The number of motor vehicles in Alabama increased from 9,108 in 1914 to 312,920

in 1939 while the total miles of road only increased from approximately 50,000 in 1914 to approximately 65,000 in 1939. Of the money available, little was provided for keeping road passable. Compounding the problem was the primitive equipment available for roadbuilding. Most of the construction accomplished during the period was by animal power or human labor since there was only a limited amount of light equipment available. There were a few powered (mostly steam) drag-lines, shovels, rollers, Holt or Best crawler tractors, concrete mixers, rock crushers and bitiminous plants in use. Maintenance equipment was horse or truck powered.

Even the elements seemed unfaborable to Alabama engineers, particularly in 1928-1929 when unprecedented rain caused extensive flood damage throughtout the State (especially in the "Wiregrass" vicinities of Elba, Geneva and Brewton) and caused an estimated eight to ten million dollars of highway damage. In early March, 1929, heavy rains became an everyday thing, and in the middle of the month, the "bottom feel out." The gauge at Elba registered sixteen inches before it was washed away, and other areas reported ten to fifteen inches in a few hours. The Choctawhatchee, Pea, and Conecuh Rivers overflowed their banks. The first news of the seriousness of the situation came in a telegram to Governor Bibb Graves on Thursday, March 14th. The telegram stated that water was ten feet deep in Elba and immediate assistance was needed. Several companies of National Guard were ordered to the scene with supplies and boats. The Highway Department began organizing repair crews and assembling materials. Members of the Air Service (fore runner of the Air Force) stationed at Maxwell Field in Montgomery volunteered their services and rendered valuable assistance. The rapidly rising waters had marooned people on house tops, in trees, and on small areas of high ground. For a time the only way to get food and supplies to them was by aid (by "aeroplanes" according to the 1929 Annual

Report of the Highway Department). Planes were also useful in locating marooned people. The Air Service aid prevented much suffering and possible death - particularly in regard to people marooned outside of the towns. Elba was the hardest hit by the flood, but similar conditions existed at Geneva, Brewton, and Pollard. Railroad traffic was stopped by washouts, and there was no communication by telephone or telegraph in most areas.

The Highway Department proved to be an effective agency of disaster relief. The 1929 Annual Report of the Department states : "Every effort of the Highway Department was concentrated on getting motor traffic into the stricken areas and every engineer, maintenance supervisor and laborer stayed with it night and day until this was done. In all cases highway communication was restored long before that of the railroads." Nor did local Highway Department officials wait for Montgomery direction. F. W. Weldy, later to serve in executive positions in Montgomery and as Division Engineer of the Third Division (Tuscaloosa), was in Opp at the time of the flood and gave the following account:

> Crews were organized and worked day and night for three days, building temporary timber ramps over bridge and washouts at small stream crossings, following as close as possible the receding waters. Due to the limited amount of suitable lumber available in the area, many of these temporary birdges or ramps were constructed for one-way traffic only.
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> The last and most difficult problem facing our forces was the Pea River crossing between Opp and Samson. As the river began slowly receding we could see that about twenty-three hundred feet of fill corssing a low black much bottom on our (west) side was all being washed away. During this time we were having all the suitable lumber available delivered at the water's edge. After all lumber delivered was carefully checked, it was found there was not enough to floor a one-way bridge all the way across the washed out area. Our lumber was 2" x 6", 8" and 10" - 8' and 16' lengths rough. This being the case, it was quickly decided to lay "cross ties" on 4-feet center and build a 30-inch width runway for each vehicles to travel on.
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> As soon as the water lowered enough for men to move about on the ground, we began shaping the ground and leveling only a width necessary to lay the timber runways. This work started about daybreak one morning, and by midnight we were pasing vehicles through with food

and clothing going into Geneva.

I remember very vividly that Mr. H. H. Houk, Bridge Engineer (at that time), was the first Highway Department Official to reach that vicinity after the flood. This was about 2:00 o'clock a.m. on the second ninght after the rain ceased. We were just finishing a one-way timber ramp over a washed out fill at the north end of Five Mle Creek bridge between Opp and Andalusia, which opened this section of highway to traffic. Mr. Houk was dressed in khaki unionalls and they were wet up to his belt. He made it into Opp, slept about four hours, and spent about three hours with me looking around Lightwood Knot Creek and Pea River near Samson. When I told him water in Lightwood Knot lacked only about five inches going over the two steel pony trusses he said, "Oh no, you have stopped exaggerating and are beginning to lie now." However, before he left we climbed up and saw the "suds line" in the top cord of the steel trusses.

There were no trains in or out of Opp for a period of twenty one days. Also, we were without telephone or telegraph communication for at least four or five days. The first message to reach me was by telegram received at Hartford and delivered by another project engineer who was based at Hartford. It was five days old the day it was delivered. It read as follows:

"Employ immediately any available forces within your area necessary to restore traffic on highways." Signed: A. H. Feagin, Division Engineer."

We had already been doing this for the past five days and were by this time getting organized with more permanent type repairs to roadway washout damage.

Similar action was taken by other local highway officials and by crews from Montgomery. All of the state routes were soon opened with the exception of some roads in the immediate vicinity of the major streams of the area. The eighteen-year-old Highway Department had won its spurs. The Department workers made the most out of a bad situation, and their productive work under the most trying circumstances was a high point of the so-called "Patch Road" era.

Unknown to the engineers toiling in the Wiregrass an even greater trial was to come in short order, the Stock Market Crash of the fall of 1929 and the "Great Depression" which followed. Within three and a half years, seventy-four billion dollars had been lost on the Stock Exchange. Exports declined from $4 billion in 1929 to $1 billion in 1933. Unemployment increased from three million to an estimated seventeen million in the same time span. More than

10,000 deposit banks failed in the five years after 1929. By 1933 farm prices were sixty percent lower than the already low 1929 prices. Historian Carl Degler, who dubbed the Depression and New Deal governmental reforms which followed, the "Third American Revolution" (the Civil War being the second), commented that: "In all our history no other economic collapse brought so many Americans to near starvation, endured so long, or came so close to overturning the basic institutions of American life." But, as fellow historian Daniel Boorstin predicted about the "crises" situation of the 1960's (urban, racial, campus, ecological, etc.), we will "muddle through." Americans and Alabamaians in the Depression did exactly that, and, like the problems of "growing old," it was better than the alternative.

In spite of the Great Depression, floods, primitive equipment, greater road use and accompanying maintenance problems, inacequate financing, and the natural barriers faced by road system for Alabamians and the "old-timers" of the Department who lived through the era have reason to question the negative slant of the "Patch Road" terminology. To paraphrase Winston Churchill's comment on the RAF fighter pilots' heroics in the "Battle of Britain," never have so few, with so little, done do much, for so many, who wanted so much.

In fact, the effort of Department workers to give the public the greatest mileage possible from available funds was responsible for the "Patch Road" label. The public clamor for more mileage of all-weather surfaced roads, combined with limited funds, convinced the Department to put into effect ideas previously advanced by its engineers - low cost roads. Errors were made initially in the program, but, in the end, the program gave the public five miles of paved road, adequate to sustain current needs, where they had only been getting one mile. Speed of construction, pleasing riding qualities, low cost of building and adequacy of carrying capacity for

current traffic put the Department into the bitumunous surface treated road program. A contemporary of the period, J. L. Land, stated: "Surface treatment on local material bases became synonymous with Alabama, by the traveling public , throughout the nation."

In addition to the Low Cost Road Program, the 1920's-1930's era was know for a considerable bridge building program, the "Alabama Highway Code" of 1927 (including the road program connecting county seat), industrial development in roadbuilding materials and equipment, the construction of a Highway Building, the establishment of the State-Wide Planning Survey, the start of the State Testing Laboratory, the greater use of convict labor in road work, and the effective use of federal aid.

A major accomplishment of the Department in the 1920's was in the field of bridge-building. From the time the Federal Highway Act of 1916 became effective until October, 1925, six-tenths of one percent of all road mileage built in Alabama was bridges, thereby facilitating travel far in excess of that indicated by road mileage alone. Additionally, due to the State Toll Bridge Act of 1927, the State built fifteen major bridges ("at a limited expenditure of $5,000" according to Land). The bridge office was a busy place in the aftermath of the 1927 legislation, but, within a short time, surveys and plans were completed for the fifteen toll bridges and action instituted for placing them under contract. As a result of their efforts, several large bridges were open to the public by the end of the era. These included the Washington Ferry Bridge, the Keller Memorial Bridge, and bridges at Gadsden, Leesburg, and Tallapoosa.

The 1920's also saw the restructuring of the Department through the "Alabama Highway Code." The Legislation, at its Regular Session in 1927, passed "The Alabama Highway Code," which provided a general system of laws pertaining to public roads and bridges consisting of some

forty-six sections.

This instrument set up a State Highway Department of Alabama with a three man commission, with enabling provisions for rules and authority of action, a Bond Commission, public power, provisions for expenditure of funds, allocating $250,000.00 expenditure in each of sixty-seven counties, connecting county seats, and many more.

The directing organization was composed of: Col. Woolsey Finnell, Director and Chief Engineer; Mr. Henry J. Law, Associate Commissioner; Mr. John S. Turner, Associate Commissioner; Mr. Geo. L. Moulton, Assistant Engineer of Construction; Mr. William Toxey, Assistant Engineer of Location; Mr. H. H. Houk, Bridge Engineer; Mr. L. M. Dinsmore, Plans Engineer; Mr. J. C. Long, Purchasing Agent; Mr. Cecil Brown, Maintenance Supervisor; Mr. Frank Peabody, Auditor; Mr. F. O. McManus, Chief Clerk; Mr. H. D. Burns, First Division Engineer; Mr. R. D. Jordan, Second Division Engineer; Mr. A. H. Feagin, Third Division Engineer; Mr. W. P. Moon, Fourth Division Engineer.

The reorganized Department was assisted in its road building endeavors by industrial development in materials and equipment. The major areas of improvement were in processed building material (slag, gravel, cement, asphalt, and tar) and road machinery. There was also a considerable improvement in the quality of other materials and equipment used by the road and bridge constructuion companies (the contractors).

The Highway Department Building (present Public Safety Building) was also constructed in the era. A Works Progress Administration (WPA) project, it was begun in 1936 and finished the next year. Labor and materials were furnished by the WPA, and the Highway Department supplemented the funds and maintained rigid control of construction. The building was of

monolithic concrete construction, with partitions of cinder aggregate concrete blocks. A functional building, it housed the Highway Department and the State Highway Patrol from its completion until the Highway Department moved into its new building east of the Capitol in 1964. Upon completion of the building, the whole organization was transferred to the next block to construct the Archives and History Building.

Another creation of the era was the State-Wide Planning Survey. Established in 1935, it was a joint state and federal agency, whose function was to accumulate, coordinate, and interpret facts of roads and traffic, and put this information in such form as to be available for determining road needs. It was essentially a continuing operation to keep this data current. This agency has been well conducted and developed, and was of great importance in the advance planning of highway programs.

The era was also known for the establishment of the State Testing Laboratory. The State Testing Laboratory, under the direction of R. S. Hale, had the function of checking materials and construction against specifications.

The "Patch Road"era was additionally characterized by more convicts being used by state roadbuilders. Increased use of convicts on the roads was a result of two bills passed by the Legislature in the 1927 regular session. Senate Bill 16 made it unlawful to work convicts in coal mines or to hire or lease them for any purpose, and Senate Bill 100 reaffirmed the State's right to use convicts for road work. C. A. Moffett, President of the State Board Administration (which controlled the use of convicts), announced plans for six convicts camps (five were built). Each of the camps was to have five wooden houses (painted "battleship grey"): two for convict sleeping quarters, one for a dining hall, a multiple-use building (warden's office, guards' sleeping quarters,

and storage), and the fifth for a hospital. The houses would be located within a barbed wire stockade, with enough space allowed within the enclosure for recreation. Each house would have no more than fifty standard Army steel cots, equipped with "24 lb. mattresses made of cotten felt." Showers were built in each convict "dormitory." The camps were to be "illuminated by Delco Light Systems," and the water (for the showers, the water treatment plant, etc.) would be pumped by Delco pumps. All in all, contemporary skeptics of prison reform could echo some current cries of "country clubs" or at least allege that the convicts "had it as good as the boys in the Army."

Federal aid through the New Deal agencies was responsible for the bulk of the limited success of Alabama roadbuilders during the latter part of the era, the Depression phase. One major cooperative federal-state-county effort was the famous "Three-Way Projects." The three partners were the county governing bodies, the Alabama Highway Department, and the Alabama Relief Administration, and their combined efforts resulted in many miles of roads (originally built with temporary surfacing) being reconstructed, based, and surface-treated at a very low cost.

Other forms of federal aid in the period were some 390 miles of roads and 5400 feet of bridges completed as Public Works Projects and various matching programs (with Alabama's share often receiving a boost from Federal Emergency Relief funds and Flood Relief funds). Primary matching programs were created through the National Recovery Act (1933) and the Haden-Cartright Act (1934). The rules and regulation for spending this money were such that it could be used for matching accrued unmatched Federal aid to be distributed fifty percent main highways, twenty-five percent municipal, and twenty-five percent secondary roads, thus providing small amounts of construction in many towns and villages and in every county of the State.

In the administration and coordination of federal aid, the U.S. Bureau of Public Roads officials in Alabama were especially helpful to the Highway Department. J. L. Land, who was personally familiar with these federal employees, recognized the specific contributions of "Messrs. Headly, Angle, Friedman, McWhorter, Call Lockard, Martin, Melvin, Scott, Wilburn and Tompkins."

In summary, the "Patch Road" era featured many progressive developments in Alabama's road system, and, in terms of "what was done with what they had," the period was one of the most productive in the history of the Alabama Highway Department. The Alabama Highway Department was able to institute a Low Cost Road Program, build several bridges, reorganize via the "Alabama Highway Code" of 1927 (which included appropriations for a road system connecting county seats of the State), feature some industrial development in road building materials and equipment, construct a Highway Building, establish the State-Wide Planning Survey, originate a State Testing Laboratory, make greater use of convicts for road work, and make the most out of federal aid programs of the New Deal.

WORLD WAR II AND AFTERMATH, 1939-1956

The most significant development in Alabama highways in the immediate pre-World War II period was the 1939 reorganization of the State Highway Department. Paralleling national administrative reform movements of the New Deal, the highway reorganization in Alabama produced a Department which has remained essentially the same to the present.

The plan of organization was developed by Mr. Chris J. Sherlock and his advisors after

careful consideration of organizations used in other states, and the features adopted were those most applicable to the Alabama situation. The plan was ready when the governor was inaugurated. It was approved by him and was made effective immediately. The outline of the organization was as follows:

a. The Highway Director

b. Six cabinet members, acting as advisors and consultants with the Director, collectively or individually. Each of the cabinet members were to head a branch of the Highway operation, called a Bureau.

c. The number of Divisions increased from four to seven. Major personnel and their areas of responsibility were as follows:

Highway Director - Chris J. Sherlock, Head of the Department
Secretary to the Director - F. O. McManus
Office Engineer - W. G. Pruett, Head of the Bureau of Office Engineer, which included:
- a. Division of Federal Aid
- b. Division of Estimates and Proposals
- c. Division of Planning Survey
- d. Division of W.P.A. and P.W.A.

Construction Engineer - William Herzberg, Head of the Bureau of Construction, which included:
- a. Bituminous Work
- b. Bridge Divisions
- c. Convict Operations
- d. Aggregate Production
- e. Materials and Research
- f. Testing Laboratory
- g. Claim Agent

Engineer of Surveys and Plans - S. W. Harbin, Head of the Bureau of Surveys and Plans, which included:
- a. Division of Location Surveys
- b. Division of Plans
- c. Division of Righy of Way

Auditor - A. D. Trum, Head of the Bureau of Finance, which included responsibility for accounting for all financial features of the Department.

Equipment Supertindent - H. B. Quinn, Head of the Bureau of Equipment, the organization of which was similar to the previously in effect.
Maintenance Engineer - Marvin Taylor, Head of the Bureau of Maintenance, which included all maintenance operations, both free labor and convict.

Division Engineers

Division 1. - H. D. Burnum, Decatur
Division 2. - R. D. Jordan, Birmingham
Division 3. - S. J. Cumming, Tuscaloosa
Division 4. - W. P. DeJarnette, Alexander City
Division 5. - V. S. Gaines, Montgomery
Division 6. - George W. Phillips, Grove Hill
Division 7. - T. H. Espy, Montgomery

The organization in each division was an adapted replica of that in the central office. The division engineer had three assistant division engineers - one each for Construction, Maintenance, and Materials.

No time was lost putting the new system into effect, but an appreciable time was required to get the several division headquarters in shape for orderly housekeeping. Office building were constructed during the first year at Decatur, Tuscaloosa, Alexander City, and Grove Hill. The Fifth and Seventh Divisions were housed in the Highway Building in Montgomery; the Fifth until its dissolution in 1942; and the Seventh until 1947, when it was moved to Troy. There the Seventh Division rented quarters over the city fire station for a few years until a new office building, convict camp, and warehouse, and sign shop were constructed on the Elba Road. The Second Division continued for awhile in its old quarters in Birmingham then moved near the Redmont Hotel until the shop and warehouse were completed on U. S. 78 West.

I. B. Rutledge (head of the Bureau of County Aid from its establishment in 1943 until its abolition in 1956) summarized the major changes in the 1939 organization during the 1939-1956

years. They were:

1. When Mr. Marvin Taylor entered the armed services in 1942, Mr. George W. Phillips, then Sixth Division Engineer, took his place as Maintenance Engineer, and Mr. A. P. Villadsen was appointed Sixth Division Engineer. Upon the death of Mr. William Herzberg, Construction Engineer in July 1943, this Bureau was consolidated with the Maintenance Bureau under Mr. Phillips, and son continued until the return of Mr. Tayor, in 1945. At that time the two Bureaus were restored to their previous separate entities - Mr. Phillips holding the position of Maintenance Engineer, and Mr. Taylor that of Construction Engineer.

2. In October 1943 the Bureau of County Aid was added to the original set-up by legislative enactment. I. B. Rutledge was appointed Chief of Bureau.

3. In 1945 a separate Bureau of Tests, Materials and Research was established with Mr. J. L. Land, Chief Engineer. This had previously been a Division of the Bureau of Construction.

4. In 1947 the Bureau of Bituminous Operations (previously also a Division of the Construction Bureau) was given separate Bureau status. It was continued until 1951, when it was again made a part of the Construction Bureau.

5. In 1956 the Bureau of Materials and Tests and the Bureau of County Aid were placed under the supervision of the Construction Engineer. These changes were coincident with the retirement on July 1, of the Chief Engineers of the two Bureaus.

The Division of Bridges was removed from the Construction Bureau in 1949, and given status as a separate Bureau of Bridges. Mr. John W. Chambers was named Bridge Engineer, and Mr. C. C. Clayton, Assistant Bridge Engineer. In 1952, Mr. B. E. Higgins became Bridge Engineer, and Mr. Chambers Bridge Disign Engineer.

Another 1939 innovation related to national reform was the inauguration of the merit system for the State of Alabama. The thirty-seven-year-old merit system law is the oldest such law now in effect in any of the southern states. While the law did not overlood the evils of the spoils system - including insecurity of tenure, political patronage, and low morale - it was, according to Governor Frank Dixon who promoted it, essentially disigned to improve governmental efficiency. Governor Dixon captured these sentiments in his message to the legislature on the merit system law:

> Under our present system, the chief duty of the Governor of Alabama is running an employment agency. Many thousands of applications are on file for places; each applicant has a right to come and present his claim in person, and it is humanly impossible for the Governor to act for the best interest of the state in patronage matters, even assuming that he spends his entire time attending to that.

In the years immediately following the passage of the merit system legislation, state employees learned to appreciate their new status. As stated in 1960 by Stanley Frazer, Alabama's Personnel Director since 1954: "They value the guarantees of permanence, the freedom from political harrassment, the opportunities for orderly increases in pay and promotion, and the added dignity of employment through their own merits rather than through patronage." Highway Department executive I. B. Rutledge, in his 1958 summary of the 1938-1955 years, commented that the merit system "had a tremendously stabilizing effect on the Department personnel and has contributed measurably to the efficiency and morale of the organization since that time."

The reorganization of the Department and the beginning of the merit system were positive and progressive actions in 1939 as were similar actions in the "Patch Road" era, but, like that era, the immediate pre-World War II period innovations had their negative counterpart due to nature - not another flood, but unprecedented cold weather.

The winter of 1939-40 was the most severe the Highway Department had had to face since its creation in 1911. It took a tremendous toll on black top surfaces throughout the state. A considerable amount of mileage of concrete pavement on U.S. 31 north of Montgomery was broken up, covered with a heavy base course of clay-gravel, and repaved with bituminous paving during the next two years. All resources of the Department were enlisted in the rehabilitation of this and the bituminous surfaces. In the next three years, the Maintenance Bureau reported resurfacing 2,054 miles of bituminous pavement.

Another reaction to the cold weather damage to Alabama highways in the winter of 1939-1940 was the establishment of a winter training school. The school, directed by Division of Materials and Tests, gave instruction to more than one hundred project engineers and inspectors from all over the state. Thus, Highway Department work was coordinated between the laboratory and the field. The success of the school prompted its continuation through subsequent winter seasons (when field work was slowed down and the men could be spared).

Other pre-war innovation in Alabama's road system were better road design (partially due to research responding to the cold weather damage to highways), more road maintenance (with extensive use of convicts), the opening of new river bridges, the establishment of a group in the Bureau of Surveys and Plans to check final quantities before payment on contracts, progress in highway marking, (striping, etc.), and in increase in the number and improvement in the quality of highway signs. Improved road design included the flattening of embankment slopes, strip sodding, grass ditch checks, and other divices for erosion control. These were both construction and maintenance operation and were quite effective.

Maintenance operations were almost exclusively conducted with convict labor. In addition to ordinary roadway maintenance, prisoners quarried and crushed stone for base material and surface treatment aggregate. They were extensively used on bituminous resurfacing operations.

Three important river bridges were opened to traffic during this period:

1. The Sheffield-Florence bridge over the Tennessee River in 1939;
2. The Selma bridge over the Alabama River in 1940;
3. The bridge over the Mulberry Fork of the Warrior River on U.S. 78, near Jasper.

The Bureau of Maintenance was also active in the pre-war days. Steady improvement was made in marking the highways and in posting signs. Areas of focus were traffic strips, no-passing zones, and the channeling of traffic at intersections. A statewide uniformity developed as a result of Division cooperation, and, by the beginning of World War II, Alabama ranked high nationally in this field.

The United States had more than one-half million soldiers either killed or wounded in World War II. Not only did our young men fight overseas, but the war also revolutionized life on the home front. Everything was subordinated to supporting the war, and more than 350 billion dollars were expended in the effort. Every area and institution in the United States was affected by the war including Alabama and the Highway Department.

The impact of war fell heavily on the Department. Over 600 employees were taken into the armed services. Regular federal aid was suspended in December, 1941. The Works Projects Administration program came to a close in 1942 (with a total expenditure on projects amounting to over $13,800,000.) All activities of the Department were correlated with the war effort. Access roads to military installation became the principal construction activity - all the cost being paid by the federal government. A Priorities Branch was set up in the Bureau of Office Engineer, which processed applications for restricted materials for counties, municipalities, and public utility companies, as well as for the Department.

World War II began with Chris J. Sherlock as the Highway Director. He was succeeded in 1942 by W. Guerry Pruett (the first of three terms he was to serve as Director) who, in turn, was followed G.R. Swift in 1943. Ed N. Rodgers was Swift's Assistant Director and became the Director in 1946 when Swift resigned to accept an appointment as United States Senator to fill

out the unexpired term of Senator John Hollis Bankhead, Jr.

Rodgers, who was to again serve as Highway Director in the 1963-64 years (and subsequently to publicize Alabama's road system in his editorial columns in Alabama Roadbuilders), was known for promoting low cost roads. This program consisted of re-establishing the initial dimensions of worn out roads using the original materials, correcting their previous deficiencies, and applying a surface treatment to them. Considerable mileage was reclaimed in this manner.

Other highway innovations of the World War II era were the Farm to Market Road Act of 1943 and the Federal Aid Act of 1944. Farm to Market roads had been a major plank in the platform of Governor Chauncey Sparks (1943-1947), and he enlisted the services of Ed N. Rodgers to help formulate the bill. As passed by the legislature, it provided for setting aside one cent of the state's gasoline tax to be distributed equally among the sixty-seven counties on a 50/50 matching basis to be used in the construction of county roads, under the supervision of the Highway Department. The organization was effected, and standard specifications for materials and quality of work made obligatory. A registered professional engineer in charge of direct supervision in each county was a prerequisite for participation. The new program was coordinated within the Highway Department by the Bureau of County Aid (a creation of the Farm to Market Road Act). During the twelve years of the program while the Bureau of County Aid was on an independent status (to July of 1956), 6,008 miles of roadway, over ninety-five percent paved, and 98,261 linear feet of bridges were completed. The cooperation of every Bureau of the Department, and each Division organization, was involved in the program, and the result was the practical completion of the network of principal roads in all the counties. A provision of the

original Act required the county to maintain all completed projects in a condition satisfactory to the Highway Department. This provision was enforced with the Bureau of Maintenance being the final arbiter.

The Federal Aid Act of 1944 was designed on a scale to bolster the national economy by providing work for returning veterans, in addition to the normal highway obligations. The total federal aid allotment to Alabama for 1943 was $2,700,000, while the allotment for the first post-war year was $9,747,558. This was continued with subsequent Federal Aid Acts of 1948, 1950, 1952, 1954, and 1956. The total allotment for regular federal aid in 1956 (primary urban and secondary) was $13,467,345. This was exclusive of the Interstate Program, which added $3,536,466, for the same year.

The end of the war in October, 1945, was followed by the lifting of government restrictions which had been in effect since April, 1942. From that time until the ban was lifted, no construction could be initiated without special government permit. The law of supply and demand was now free to operate, and it did. With the end of gasoline rationing, and the rapid rise of the general standard of living, there was a continuing tremendous increase in the ownership of private cars and trucks, in the number of commercial trucks and buses put into service, (which soon put the railroads in a secondary position in the field of public transportation), and in the general growth of the nation's business. With increased road use came demand for the extension of the highway systems and betterment of existing roads. Another cent was added to the gasoline tax, and the tax, in addition to vastly increased federal aid, provided the means for the tremendous increase in highway construction from 1945 to 1955.

The World War II era has some notable successes in the 1939 Departmental

reorganization, the merit system, successful reaction to cold weather damage to roads in the winter of 1939 to 1940, improved road design, better maintenance, the opening of new river bridges, better checking procedures in regard to final quantities in contract work, progress in highway marking, the Farm to Market Road Act by the State legislation, and the Federal Aid Act of 1944. These gains, coupled with the accomplishments of the "Patch Road" era, contributed to an appreciable number of major highways and bridges in Alabama by the immediate post-World War II period.

MAJOR ROADS IN THE STATE HIGHWAY SYSTEM IN THE IMMEDIATE POST-WORLD WAR II ERA*

The John Craft Highway at Muscle Shoals on U.S. Route 43 (Mobile to Florence).
The W.W. Brannon Highway on U.S. Route 31, Montgomery to Mobile.
The Joe Wheeler Highway from Huntsville to Decatur to Tuscumbia along Alabama Highway 20.
The Lee Highway enters Alabama near Bridgeport and crosses the State over U.S. 72 by way of Scottsboro, Huntsville, Athens, Tuscumbia and into Mississippi near Margerum.
The Jefferson Davis Highway enters Alabama from Georgia at West Point, Georgia, and traverses the State by way of Opelika, Montgomery, Selma, Thomasville, Grove Hill, Mobile and into Mississippi near Grand Bay. Another branch of the Jefferson Davis Highway is located from Montgomery southeasterly by way of Union Springs to Midway and enters Georgia at Eufaula.
The Old Spanish Trail enters Alabama from Pensacola near Seminole and is routed through the State over U.S. Highway 90 by way of Loxley, Spanish Fort, Mobile and into Mississippi near Grand Bay.
Dixie Overland Highway is routed via U.S. Highway 80 from Columbus, Georgia to Montgomey to Selma to Livingston and into Mississippi near Cuba.
The University Highway connects Montgomery with Tuscaloosa over Alabama Highway 6, by way of Prattville and Centreville.
The Dixie Graves Parkway consists of parkway constructed from Gulf Shores to Ft. Morgan.
The Florida Short Route enters Alabama from Fayetteville, Tennessee to Huntsville, Guntersville, Gadsden, Sylacauga, Alexander City, Opelika, and into Georgia at Columbus. A branch of the Florida Short Route extends from Sylacauga to Birmingham, Jasper, and Hamilton before entering Mississippi near Tupelo.
The Bee Line Highway traverses the State of Alabama over U.S. Route 31 and 231 entering

Alabama from the north at Ardmore, Tennessee, by way of Decatur, Cullman, Birmingham, Clanton, Montgomery, Troy, Dothan, and into Florida near Madrid.
The Bankhead Highway enters Alabama and is routed on U.S. Highway 78 through the State by way of Heflin, Anniston, Birmingham, Jasper, Hamilton and into Mississippi near Bexar.

*Compiled by F.O. McManus, Secretary to the Director of the State Highway Department, for Marie Bankhead Owen's The Story of Alabama (N.Y.: Lewis Historical Publishing Company, Inc., 1949), Volume II, pp. 260-262.